Amendments to the Claims:

Please amend claims 1, 2, 4 and 8, cancel claims 6, 7 and 9, and add claims 11-14 as shown in the following listing of claims. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A multi-carrier transmission system for transmitting information signals over a set of carriers, the set of carriers comprising a sub-set of carriers, denoted sub-carriers, and modulating each sub-carrier ~~being modulated~~ according to a ~~first~~ modulation ~~comprising complex symbols~~, comprising:

a mapper configured to modulate each sub-carrier using a first constellation to convey additional information signals; and

a signal block configured to modulate each sub-carrier using a second constellation to convey parameter signaling signals,

wherein the real parts of complex symbols of the modulation ~~which being~~ are proportional to a combination of the real parts of complex symbols of the first ~~a second~~ constellation~~, which convey additional information signals,~~ with the real parts of complex symbols of ~~a third~~ the second constellation~~, which convey parameter signaling signals~~, the complex parts of the complex symbols of the ~~first~~ modulation being proportional to ~~a combination of~~ the complex parts of the complex symbols of the ~~second~~ first constellation.

2. (currently amended) A system as claimed in claim 1, wherein said ~~third modulation~~ second constellation is of the type DBPSK and wherein couple of symbols of the ~~second~~ first constellation makes an angle, which is smaller than 90 degrees.

3. (original) A system as claimed in claim 2, wherein said sub-carriers are the DBPSK modulated TPS carriers of the DVB-T transmission system.

4. (currently amended) A system as claimed in claim 3, wherein the complex symbols, denoted z, of said ~~second~~ first constellation are defined by z $\in$ {1+j.0.5, 1-j.0.5} or z $\in$ {3+j.0, 2-j, 2+j, 1+j.0} or z $\in$ {7+j.0, 6-j, 6+j, 5+j.0, 4-j.3, 5-j.2, 3-j.2, 4-j, 4+j.3, 3+j.2, 5+j.2, 4+j, 1+j.0, 2+j, 2-j, 3+j}.

5. (original) A system as claimed in claim 1, wherein the indexes of the sub-carriers in the sub-set of carriers vary with time.

6. (canceled)

7. (canceled)

8. (original) A multi-carrier transmission method for transmitting information signals over a set of carriers, the set of carriers comprising a sub-set of carriers, denoted sub-carriers and ~~, the method comprising the step of~~ modulating each sub-carrier according to a ~~first~~ modulation ~~comprising complex symbols~~, comprising:

modulating each sub-carrier using a first constellation to convey additional information signals at a multi-carrier transmission system; and

modulating each sub-carrier using a second constellation to convey parameter signaling signals at the multi-carrier transmission system,

wherein the real parts of complex symbols of the modulation ~~which being~~ are proportional to a combination of the real parts of complex symbols of ~~a second~~ the first constellation, ~~which convey additional information signals,~~ with the real parts of complex symbols of ~~a third~~ the second constellation, ~~which convey parameter signaling signals,~~ the complex parts of the complex symbols of the ~~first~~ modulation being proportional to ~~a combination of~~ the complex parts of the complex symbols of the ~~second~~ first constellation.

9. (canceled)

10. (original) A computer program product for a device computing a set of instructions,

which when loaded into the device, causes said device to carry out the method as claimed in claim 8.

11. (new) A system as claimed in claim 1, wherein the real parts of the complex symbols of the modulation are equal to the product of the real parts of the complex symbols of the fist constellation, the real parts of the complex symbols of the second constellation and a regulation factor.

12. (new) A system as claimed in claim 11, wherein the regulation factor is determined by the modulation.

13. (new) A system as claimed in claim 1, wherein the complex parts of the complex symbols of the modulation are equal to the product of the complex parts of the complex symbols of the first constellation and a regulation factor.

14. (new) A system as claimed in claim 13, wherein the regulation factor is determined by the modulation.